WE CLAIM:

1. A datapath structure, comprising:

one or more cell instances, each cell instance having a pin;

one or more pseudo cell instances, each pseudo cell instance having a pseudo pin, each pseudo cell instance in the one or more pseudo cell instances being placed at a location relative to the one or more cell instances in encouraging a predetermined structure; and

one or more pseudo nets, a first pseudo net connecting between a pin of a first cell instance in the one or more cell instances and a pin in a pin in a first pseudo cell instance in the one or more pseudo cell instances.

2. The structure of Claim 1 further comprising a first relative position between the first cell instance and the first pseudo cell instance.

3. The structure of Claim 1 wherein the first pseudo cell instance being placed at a location to the first real cell instance thereby producing a zero length in the first pseudo net.

4. The structure of Claim 1 wherein the first pseudo cell instance being placed at a location to the first cell instance thereby producing the first pseudo having a value which is greater than a zero length.

5. The structure of Claim 1 wherein the predetermined structure comprises a column structure, a row structure, or a square structure.

6. A datapath structure, comprising:

in a datapath structure, a first cell placed at a first position; and

a second cell being placed relatively at a second position to the first position.

7. The datapath structure of Claim 6 wherein the second cell being relatively placed such that the first position of the first cell is not strictly aligned to the second position of the second cell.

8. A datapath structure of Claim 6 further comprising a pseudo element for aiding in relative placement of the second cell at the second position to the first cell at the first position.

9. A datapath structure of Claim 6 wherein the datapath structure comprises a column structure with a fixed vertical sequence for placing the first cell and the second cell.

10. A datapath structure of Claim 6 wherein the datapath structure comprises a row structure with a fixed horizontal sequence for placing the first cell and the second cell.

11. A datapath structure of Claim 6 wherein the datapath structure comprises an array structure with a fixed vertical sequence and a fixed horizontal sequence.

12. A computerized method for encouraging a structure bonding, comprising the steps of:

placing a first pseudo cell instance at a location relative to a first cell instance in a plurality of cell instances for encouraging a predetermined structure bonding in the plurality of cell instances; and

connecting the pseudo net between the cell instance and the pseudo cell instance.

13. The method of Claim 12 further comprising the step of minimizing a wire length in the pseudo net from the placement of the first pseudo cell instance relative to the first cell instance.

14. The method of Claim 12 further comprising the step of providing a first offset between the pseudo cell instance and the first cell instance.

15. The method of Claim 12 further comprising the step of determining a second offset between the pseudo cell instance and a second cell instance in the plurality of cell instances.

16. The method of Claim 12 wherein the predetermined structure comprises a column structure, a row structure, or a square.

17. The method of Claim 12 wherein the placing step comprises the step of placement without introducing extra dead placement spaces.

18. A density map partition having a region A for computing a force update vector, the region A having a plurality of cell instances with a centering cell at an A(0, 0) location, comprising:

a first cell instance density at an A(0, 0) location having a rectangular grid unit; and

a plurality of rectangles A(m, n) cell instances coupled to the A(0, 0), the plurality of rectangles A(m, n) cell instances contains multiple number of the rectangular grid unit wherein a farther away A(m, n) cell instance the large the multiple number of the rectangular grid unit.

19. The density map partition of Claim 18 wherein the A(m, n) cell instances comprises A(-1, 0), A(-1, 1), A(-1, -1), A(0, 1), A(0, -1), A(1, 0), A(1, 1), A(1, -1) cell instances wherein each having a same rectangular grid unit as A(0, 0).

20. The density map partition of Claim 18 wherein the A(m, n) cell instances comprises A(-2, 0), A(-2, 1), A(-2, -1), A(2, 0), A(2, -1), A(2, 1), A(-1, -2), A(0, -2), A(-1, -2), A(-1, 2), A(0, -2), A(1, 2), cell instances wherein each having twice the rectangular grid unit as A(0, 0).

21. The density map partition of Claim 18 wherein the force update vector comprises computing attractive and repelling forces affecting the A(0, 0) cell instance.

22. A computerized method for generating non-uniform partitioning of cell instances in computing force update vector, comprising the steps of:

selecting a reference cell instance in a region A having a plurality of cell instances, the reference cell instance having a grid base unit; and

computing a force update vector of the reference cell instance, each of the plurality of cell instances having either a same grid base unit or a multiple time of the grid base unit.

23. The method of Claim 22 further comprising the step of computing an attractive force from the reference cell instance in the plurality of cell instances.

24. The method of Claim 22 further comprising the step of computing a repulsive force from the reference cell instance in the plurality of cell instances.